International Joint Conference - CIO-ICIEOM-IIE-AIM (IJC 2016)
San Sebastián, Spain, July 13-15, 2016

Geospatial Coverage Patterns of Banking Strategic Groups in Venezuela

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Abstract The objective of this research is to determine the Patterns of Geospatial Coverage (PGC) of Strategic Groups (SGs) in the Venezuelan banking sector. In order to achieve this objective three years (2008-2010) characterized by financial instability were considered. Variables of the two dimensions: Scope of the Strategy and Committed Resources, already used by other authors, were considered in this research. The results indicate that, at least in Venezuela, banking sector SGs adopt a geographic coverage strategy consistent with their strategy of scope and commitment of resources.

Keywords: Strategic Groups; Venezuelan Banks; Geospatial Coverage.

1 Venezuelan Banks, Strategic Groups and Geographic Coverage

This section briefly describes the most important features of the Venezuelan banking industry as well as part of the theory of strategic groups and geographic coverage.

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1.1 The Venezuelan Banking System

As of 2004, the credit portfolio of the Venezuelan banking system experienced a rapid growth influenced by the increase in prices of the barrel of oil and, as a consequence, due to the increase of public deposits in banks.

Then, in late 2008 a financial crisis that led to the bankruptcy and intervention of 21 banks (Sudeban, 2013) within three years starts. In most cases, interventions occurred as a con-sequence of irregularities that were occurring in institutions. However, authors like Bernardette et al. (2007) had pointed to the fragility of the Venezuelan banking system, for several reasons: 1) The abrupt growth of public deposits led to the allocation of a greater number of credits, with the result of delinquent portfolios. 2) Higher purchases of securities of the National Public Debt and Treasury increased the vulnerability of the system. 3) The exchange control that keeps Venezuela since 2003 and inflation led to lower availability of resources for intermediation by the banking system. 4) The regulation of interest rates negative effect on financial margins.

Public banks benefited from these interventions, as the Bicentennial Bank, the Treasury and the Bank of Venezuela acquired several private financial institutions, already liquidated, which led to a rapid increase in the banking network of the state.

1.2 Strategic Groups and Geographic Coverage

In the context of the dimensions used in this research, Cool and Schendel (1987) define SGs a set of companies competing within an industry which have similar combinations of scope and committed resources.

One of the important aspects of the analysis of GE, for some authors, is that possible to determine a priori the level of performance achieved by a company that is located within a certain GE (McNamara et al., 2003). By contrast, other researchers found no significant differences in performance between the groups obtained and therefore deny the predictive validity of GE or have only achieved partial evidence of this theory. The level of performance of a group may depend on the territory in which it is located (Canina et al., 2005), so the banks tend to locate their offices in the regions with greater economic development, better education and greater reliance on formal economy, in contrast to the population that does not have banking services; so poor citizens constitute the vast majority of those excluded from the financial system (Marulanda and Paredes, 2006, p. 33)

Porter (1985, p. 146) suggested that the geographical coverage (GC) is one of the indicators of the scope of the strategy, one of the two dimensions for analysis of SGs, so this indicator represents a barrier to mobility between strategic groups. The GC has been measured in studies of banking or other sectors of the economy detecting the location of offices in territorial units like districts, metropolitan areas

or countries (Blanas et al., 2012). In this research, in addition to estimating the number of branches by municipalities in each SG, they are represented in a geographic information system (GIS) to discover patterns of geospatial coverage (PGC) of bank SGs, aspect not addressed from this perspective in previous research on SGs and whose most important theoretical implications are: 1) to establish that SGs follow PGC consistent with their outreach strategies and commitment of resources, in line with the claim that competitive advantage can come from an external source such as location of the company, a factor that has been neglected in the literature (Porter and Kramer, 2011) and 2) public and private banks differ in their PGC in accordance with their social and economic goals.

2 Data and Study Variables

Initially all the banks that existed in Venezuela in 2008, 2009 and 2010 were considered. This was a period characterized by strong financial instability. Subsequently, the institutions which did not publish their financial statements in the Banking Association of Venezuela were excluded, since only those banks which publish the financial statements provide the information needed to assess the constitution of the loan portfolio. Similarly, banks with atypical values in any of the variables of the scope dimension of the strategy or of committed resources were discarded. Therefore, the sample was made as follows: For the year 2008 by 58 financial institutions, for 2009 by 52 banks and for 2010 by 39 institutions. In order to define the SGs the variables proposed by Flores et al. (2015) were used.

3 Methodology

To determine the number of suitable SGs the procedure described by Flores et al. (2015) was followed, obtaining the same factors and the same number of SGs. Similarly, to identify the strategy and resource commitment that distinguish one group from another the procedure proposed by Flores et al. (2015) was used in the first place being then complemented by the one suggested by Amel and Rhoades (1988), but only when the SGs were composed of only two individuals, due to the loss of statistical power.

The procedure proposed by Flores et al. (2015) has the following advantages over the algorithm of Amel and Rhoades (1988): 1) Greater objectivity to determine strategic sector variables for a particular period, 2) It establishes differences between SGs objectively, 3) It enables the identification probable gradations in the behavior of SGs with respect to a particular variable and therefore allows a better understanding of the specialization of extra-group competitors and, 4) The hybrid behavior of SGs is demonstrated unequivocally with the post hoc tests applied.

On the other hand, in order to assess the PGC the number of offices in each SG was registered in a GIS containing information on the limits of the 335 municipalities of Venezuela. The Spearman Rho test was used to analyze the coverage of GE in the municipalities classified according to their degree of investment attractiveness. To determine the geographical coverage the number of municipalities in which at least one office is located, as well as the population density (INE, 2011), the attractiveness to invest and the poverty rank of these municipalities were considered (Roche et al., 2002; ECLAC-UNICEF, 2006; CONAPRI, 2009, 2011).

4 SGs Obtained and their Geographic Coverage

4.1 SG1: Retail banking

In the years 2008 and 2009 its asset strategy was very risky, since 45% of its loan portfolio did not have any collateral, but was efficient in evaluating the risk associated with this portfolio. On the other hand, it captured its liabilities through current accounts and showed the largest banking network of all SGs. Its geographical coverage was 51.6%, because it covered 173 out of the 335 municipalities in the country. It excluded the less populated municipalities of Venezuela and eight of the poorest (Figure 1). Geographically it included the less poor municipalities and those where it was most attractive to invest in, centralizing in these 22 municipalities 59% of its offices, 70% of its ATMs and 59% of its auto-banks. In the latter aspect, the more attractive the municipality was the higher number of auto-banks that were located in the municipality (rs $p < 0.05$). It excluded some of the less populated municipalities in Venezuela and eight of the poorest (Figure 1).

In 2010 SG1 remained aggressive in its asset strategy and conservative in the selection of the geographic market. So the SG1 positioned its large banking network in municipalities with greater economic development, and therefore higher profitability. This PGC enables the SG1, which gives a high percentage of unsecured loans: 1) To reduce the costs and risks associated with poorer regions (Mendizabal et al, 2008, p 214), 2) To be efficient in risk assessment of the loan portfolio.

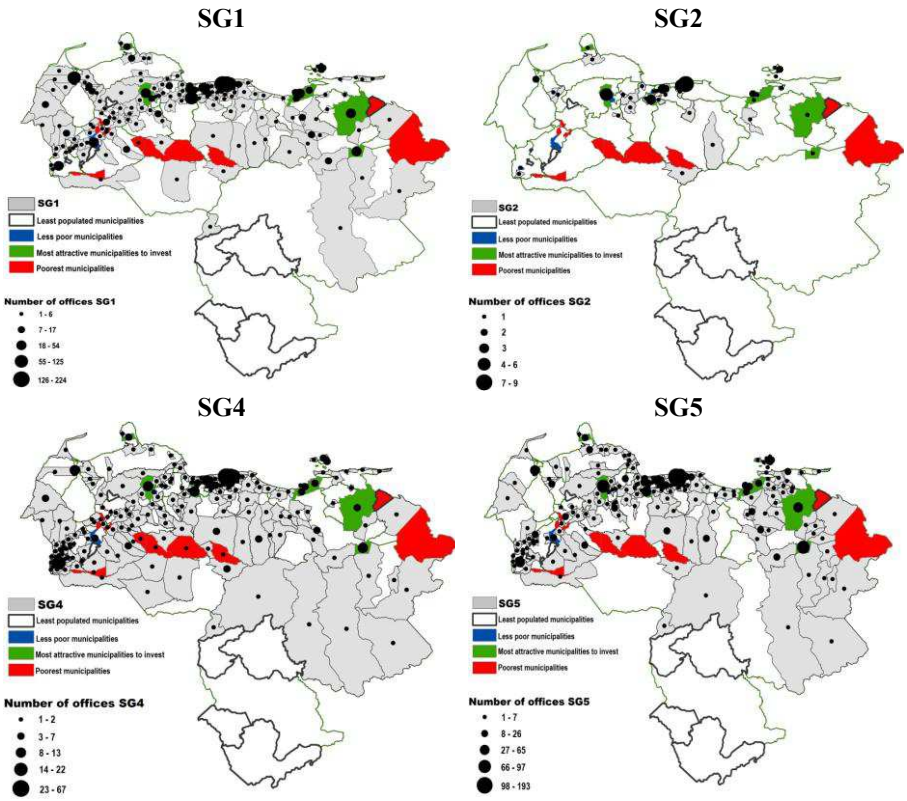

Fig 1. Geographic Coverage of the SGs (year 2008), as a function of poverty, population density and attractiveness to invest by municipality.

4.2 SG2: Microenterprise banking

In 2008 it specialized in loan portfolio aimed at micro-entrepreneurs in the formal economy. It showed a very small banking network with 12.5% geographical coverage. It established 61% offices, 50% of its ATMs and 70% of its auto-banks in t six of the least poor municipalities in Venezuela and in twelve of the most attractive to invest (Figure 1). This hedging strategy is consistent with its financial strategy, as it is in these municipalities where the bank generally gives the largest volume of loans to micro-entrepreneurs (Melandri, 2006), which is essential for its specialized strategy of offering products and services to microenterprises.
In 2009, although the SG2 was dedicated to the securities portfolio and no longer specialized in the loan portfolio, loans continued flowing towards micro-

entrepreneurs, encompassing 35 municipalities in which it granted 70% of the total loans for micro-entrepreneurs from the whole Venezuelan banking system (SUDEBAN, 2011, pp. 90-96). In 2010 SG2 again implemented the same active strategy as in 2008, maintaining its hedging strategy focused on micro-entrepreneurs.

4.3 SG3: Small corporate banking

During the three years under study, each bank of this SE had only one office in Venezuela, and no tellers or auto-banks and oriented, more intensely than other groups to interbank loans. In the years 2008 and 2009 it completely avoided placing funds in the credit portfolio and getting money through current accounts, savings and term deposits. In 2010 it did not totally sidestepped these assets and liabilities strategies.
Its geographical coverage was only 0.6%. However, for this SG it is not necessary to expand geographically to execute its unique strategy of interbank transactions, or to own ATMs or auto-banks, but its location in the contiguous municipalities of Chacao and Libertador is really important, because it is here where the financial district of the country is located.

4.4 SG4: Corporate public banks

During the 2008-2010 period it was mainly oriented to the securities portfolio, bringing financial services to its customers through a moderate banking network. In 2008 it showed the highest geographical coverage of all SGs (61.5%) but had only 32% of the branch network of the largest group (SG5). Its banking network included three of the least populated municipalities of Venezuela and six of the poorest (Figure 1) In addition, the average population in which it located at least one office was the lowest of all SGs. Although it included eight of the less poor and the most attractive to invest municipalities, it did not do it aggressively, as it only concentrated on them 43% of its branches, 43% of its ATMs and 26% of its auto-banks. So the strategy of geographical coverage of SG4 is not to concentrate its banking network in municipalities with greater economic development but rather to distribute them to the greatest number of municipalities, including some of the most depopulated and the poorest, demonstrating the social focus of public banks. This PGC was maintained in 2009 and 2010.

4.5 SG5: High risk banks specialized in domestic economies

The GE 5 had an outreach strategy, commitment of resources and geographical coverage similar to those of SG1 during the 2008-2009 period. It was a very risky banking strategy for three reasons: 1) The investment in the loan portfolio increased risk and operating costs compared to other strategies for assets, 2) It obtained resources through savings accounts and term deposits, which in Venezuela are much more expensive liabilities collection instruments than current accounts, 3) It showed a high financial leverage. However, the risk assumed in their financial strategies decreased due to: 1) Aggressively positioning its large banking network in select geographic markets, represented by the less poor and the most attractive to invest (Figure 1) municipalities, since it concentrated the largest network of branches (59%) in those municipalities compared to other SG and 2) It excluded less populated municipalities and the poorest.

In 2010 the SG5 was aimed at interbank operations. It maintained its liabilities and borrowing strategy and showed a greatly diminished bank network due to bankruptcies of some of its banks and the migration of other entities to the SG1. In this year its small banking network covered only 1.5% of the municipalities in Venezuela, specifically Chacao, which is one of the less poor municipalities of Venezuela and Libertador (Federal District), Valencia, Maracaibo and Sotillo, which are among the most attractive for investment, centralizing in these five municipalities 100% of its banking network. Therefore, SG5 was quite conservative when selecting its geographic market because it was located in areas with greater economic weight and its location in the Chacao and Libertador municipalites is essential for the implementation of its asset strategy, since it is here where the country's financial district is located.

5 Conclusions

According to the results of this research, at least in Venezuela, the SGs tend to be located in certain geographical areas (municipalities) in accordance with the implementation of their scope strategies and the commitment of resources. Therefore, the financial strategy is closely related to the strategy of geographical coverage, of which two basic patterns were detected: a strategy of concentration implemented by most private banking groups, which tend to focus on the geographic markets which are the most attractive to invest, which implies less risk and cost for the financial institutions, and a strategy of dispersion which is practiced by public banks that tends to cover more territories (municipalities) with a network of offices which is smaller than its private counterpart, Hence, it is better suited to the new principles of corporate social responsibility of banks that promote the fight against geographic financial exclusion (De los Rios et al., 2012), since it also operates in several of the less populated and poorest municipalities in the country. The information on the Patterns of Geographic Coverage enable bank

managers to explore possible new markets which have been excluded from the financial system and it also allows government officials to implement public policies to include those segments of the population which are not taken care by the financial system.

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